

STANDARDS PRESENTATION TO CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Attachment No. 1

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PROPOSED STATE STANDARD, TITLE 8, CHAPTER 4

Amend Section 5155 to read:

§5155. Airborne Contaminants.

(a) Scope and Application.

(1) This section establishes requirements for controlling employee exposure to airborne contaminants and skin contact with those substances which are readily absorbed through the skin and are designated by the "S" notation in Table AC-1 at all places of employment in the state.

* * * * *

Table AC-1

PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS

Chemical Abstracts Registry Number ^(a)	Skin ^(b)	Name ^(c)	PEL ^(d)		Ceiling ^(g)	STEL ^(e)	
			ppm ^(e)	mg/M ^{3(f)}		ppm ^(e)	mg/M ^{3(f)}
* * * * *							
67641		Acetone	750 <u>250</u>	4780 <u>593</u>	3000 ppm	4000 <u>500</u>	2400 <u>1200</u>
* * * * *							
107028	<u>S</u>	Acrolein	0.1	0.25	<u>C</u>	0.3	0.8
* * * * *							
107186	S	Allyl alcohol	2 <u>0.5</u>	5 <u>1.25</u>		4	10
* * * * *							
<u>620111</u>		<u>3-Amyl acetate; see Pentyl acetate</u>					
628637		n-Amyl acetate; <u>see Pentyl acetate</u>	400	532			
626380		sec-Amyl acetate (all isomers and mixtures); <u>see Pentyl acetate</u>	425	665			
<u>625161</u>		<u>tert-Amyl acetate; see Pentyl acetate</u>					
* * * * *							
<u>7440417</u>		Beryllium and beryllium compounds	-	0.002 <u>0.0001</u>	0.025 mg/M³	-	0.005^(p)
* * * * *							
111762	S	2-Butoxyethanol	25 <u>10</u>	420 <u>40</u>			

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Chemical Abstracts Registry Number ^(a) Skin ^(b) Name ^(c)			PEL ^(d)		Ceiling ^(g)	STEL ^(o)	
			ppm ^(e)	mg/M ^{3(f)}		ppm ^(e)	mg/M ^{3(f)}
* * * * *							
141322800		Butyl acrylate	40 <u>2</u>	55 <u>11</u>			
* * * * *							
96220		Diethyl ketone	200	705		<u>300</u>	<u>1057</u>
* * * * *							
117817		Di-sec-octyl phthalate; bis(2 ethylhexyl) phthalate	-	5		-	40
* * * * *							
106898	S	Epichlorohydrin; 1-chloro-2, 3-epoxypropane	2 <u>0.05</u>	7.6 <u>0.19</u>			
* * * * *							
106354		Ethyl butyl ketone; 3-heptanone	50	230		<u>75</u>	<u>345</u>
* * * * *							
<u>7085850</u>		<u>Ethyl cyanoacrylate</u>	<u>0.2</u>	<u>1.02</u>			
* * * * *							
<u>637923</u>		<u>Ethyl tert-butyl ether</u>	<u>5</u>	<u>21</u>			
* * * * *							
		<u>Flour dust</u>		<u>0.5^(p)</u>			
* * * * *							
111308		Glutaraldehyde	0.2 <u>0.015</u>	0.82 <u>0.062</u>	C		
* * * * *							
123922		Isoamyl acetate; 3-methylbutyl acetate; <u>see Pentyl acetate</u>	400	532			
* * * * *							
108316		Maleic anhydride; cis-butenedioic anhydride	0.25 <u>0.1</u>	4 <u>0.4</u>			
* * * * *							
<u>624419</u>		<u>2-Methylbutyl acetate; see Pentyl acetate</u>					

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Chemical Abstracts Registry Number ^(a)	Skin ^(b)	Name ^(c)	PEL ^(d)		Ceiling ^(g)	STEL ^(o)	
			ppm ^(e)	mg/M ^{3(f)}		ppm ^(e)	mg/M ^{3(f)}

80626		Methyl methacrylate; methyl 2-methyl-2-propenoate	400 <u>20</u>	440 <u>82</u>			

<u>7439987</u>		Molybdenum, insoluble compounds, as Mo	-	40			
		<u>Total dust</u>	-	<u>10</u>			
		<u>Respirable fraction</u> ⁽ⁿ⁾	-	<u>3</u>			
		Molybdenum, soluble compounds, as Mo	-	5 <u>0.1</u>			

109660		Pentane	600	1,800	750	2250	

<u>28637</u> ; <u>26380</u> ; <u>23922</u> ; <u>25161</u> ; <u>20111</u> ; <u>24419</u>		<u>Pentyl acetate</u>	<u>50</u>	<u>266</u>	<u>100</u>	<u>532</u>	

75569		Propylene oxide; 1,2-epoxy- propane	20 <u>1</u>	50 <u>2.5</u>			

<u>451629</u>		<u>1,3,5-Triglycidyl-s-triazinetriene</u>		<u>0.005</u>			

<u>75387</u>		<u>Vinylidene fluoride</u>	<u>100</u>	<u>262</u>			

Footnotes to Table AC-1

(a) The Chemical Abstracts Service Registry Number is a designation used to identify a specific compound or substance regardless of the naming system; these numbers were obtained from the Desk Top Analysis Tool for the Common Data Base and from the Chemical Abstracts Indexes.

(b) Refer to section 5155(d) for the significance of the Skin notation.

(c) Trade Names Removed from Table AC-1.

Trade Name	Chemical/Generic Name
Abate	see Temephos
Ammate	see Ammonium Sulfamate

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Aqualin	see	Acrolein
Arasan	see	Thiram
Azodrin	see	Monocrotophos
Baygon	see	Propoxur
Bidrin	see	Dicrotophos
Butyl Cellosolve	see	2-Butoxyethanol
Cellosolve	see	2-Ethoxyethanol
Cellosolve Acetate	see	2-Ethoxyethyl acetate
Compound 1080	see	Sodium Fluoracetate
Coyden	see	Clopidol
Crag Herbicide	see	Sesone
Cythion	see	Malathion
Dasanit	see	Fensulfothion
Delnav	see	Dioxathion
Dibrom	see	Naled
Difolatan	see	Captafol
Disyston	see	Disulfoton
Dowtherm A	see	Phenylether and Biphenyl
Dursban	see	Chloropyrifos
Dyfonate	see	Fonofos
Fermate	see	Ferbam
Freons	see	Fluorocarbons
Furadan	see	Carbofuran
Guthion	see	Azinphos Methyl
Korlan	see	Ronnel
Lannate	see	Methomyl
Mariate	see	Methoxychlor
MLT	see	Malathion
Moxie	see	Methoxychlor
Nialate	see	Ethion
Nankor	see	Ronnel
Phosdrin	see	Mevinphos
Pival	see	Pindone
Plictran	see	Cyhexatin
Santobrite	see	Pentachlorophenol
Sevin	see	Carbaryl
Systox	see	Demeton
Teflon	see	Polytetrafluoroethylene
Thimet	see	Phorate
Thiodan	see	Endosulfan
Tordon	see	Picloram
Trolene	see	Ronnel
Vapona	see	Dichlorvos
Weedone 638	see	2, 4-D
Zoalene	see	Dinitolmide

(d) For the definition and the application of the Permissible Exposure Limit (PEL), refer to section 5155(b) and (c)(1).

(e) Parts of gas or vapor per million parts of air by volume at 25°C and 760mm Hg pressure.

(f) Milligrams of substance per cubic meter of air at 25°C and 760mm Hg pressure.

(g) Refer to section 5155(b) and (c)(3) for the significance of the Ceiling notation. A "C" notation in this column means the values given in the PEL columns are ceiling values. A numerical entry in this column represents a ceiling value in addition to the TWA values.

(h) A number of gases and vapors, when present in high concentrations, act primarily as asphyxiants without other adverse effects. A concentration limit is not included for each material because the limiting factor is the available oxygen. (Several of these materials present fire or explosion hazards.)

(i) Coaltar pitch volatiles (benzene or cyclohexane-soluble fraction) include polynuclear aromatic hydrocarbons (some of which are known carcinogens) that evolve upon heating the distillation residues from coal tar.

(j) This standard applies to the cotton waste processing operations of waste recycling (sorting, blending, cleaning, and willowing) and ginning. It does not apply to cotton gins, cottonseed oil industry, or operations covered by section 5190.

(k) A PEL of 0.05 ppm shall apply to exposures involving a mixture of ethylene glycol dinitrate and nitroglycerin.

(l) As sampled by method that does not collect vapor.

(m) Thermal decomposition of the fluorocarbon chain in air leads to the formation of oxidized products containing carbon, fluorine and oxygen. An index of exposure to these products is possible through their alkaline hydrolysis followed by a quantitative determination of fluoride content. No particular concentration limit is specified pending evaluation of the toxicity of the products but concentrations should be kept below the sensitivity of the analytical method.

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(n) The concentration and percentage of the particulate used for this limit are determined from the fraction passing a size selector with the following characteristics:

<i>Aerodynamic Diameter in Micrometers (unit density sphere)</i>	<i>Percent Passing Selector</i>
≤ 2	90
2.5	75
3.5	50
5.0	25
10	0

Source: American Conference of Governmental Industrial Hygienists TLI Committee 1968 Proceedings.

(o) Refer to sections 5155(b) and (c)(2) for the definition and application of the Short Term Exposure Limit (STEL).

(p) ~~The STEL for Beryllium and beryllium compounds is a 30 minute time weighted average.~~

The concentration and percentage of the particulate used for this limit are determined from the fraction passing a size selector with the following characteristics:

<u><i>Aerodynamic Diameter in Micrometers (unit density sphere)</i></u>	<u><i>Percent Passing Selector</i></u>
<u>0</u>	<u>100</u>
<u>1</u>	<u>97</u>
<u>2</u>	<u>94</u>
<u>5</u>	<u>87</u>
<u>10</u>	<u>77</u>
<u>20</u>	<u>65</u>
<u>30</u>	<u>58</u>
<u>40</u>	<u>54.5</u>
<u>50</u>	<u>52.2</u>
<u>100</u>	<u>50</u>

(q) Fibers per cubic centimeter of air at 25°C and 760mm Hg pressure. To be considered a fiber for this limit the glass particle must be longer than 5µm, have a length to diameter ratio of three or more, and have a diameter less than 3µm. The National Institute for Occupational Safety and Health (NIOSH), Method 7400, Issue 2, August 15, 1994, which is hereby incorporated by reference, shall be used for measuring airborne fiber concentrations.

(r) Compliance with the subtilisin PEL is assessed by sampling with a high volume sampler (600 – 800 liters per minute) for at least 60 minutes.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 144.6, Labor Code.